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COVER: In the Developmental Physical Disabilities Clinic, part of the Physical Therapy Department at NRMC Camp Lejeune, N.C., LTJG William S. Quillen (MSC)—an ensign when this photograph was taken—helps a small friend with his navigation. For more about the clinic, see the article beginning on page 3. Photo by the NRMC Camp Lejeune Photo Lab.

Our Number One Priority

It is hardly possible to open a newspaper or magazine and not read an article or interview decrying the personnel shortages in military medicine.

I am besieged nearly every day by requests from the media for statements on the Navy's situation. Fortunately, although we are undeniably understaffed, I can report that our quality of health care has not yet suffered. Further, we seem to be doing better than our sister services in recruiting and retention.

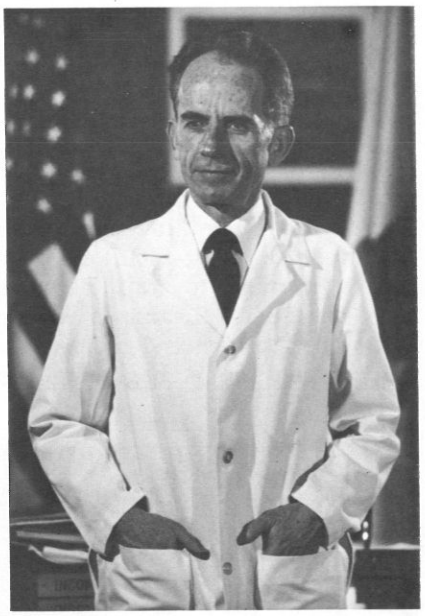
Attracting and recruiting health professionals is an area over which the average Medical Department member has, realistically speaking, very little direct control. Everyone has a great deal of influence, however, in the area of retention.

We must concentrate our efforts and encourage those individuals who are qualified to remain as part of the Navy's medical team. Command career counselors are too frequently given little support or simply ignored. They must be allowed to be more active and begin playing a major role in our retention endeavors. Of course, to be properly effective they must be utilized. I urge everyone to contact a counselor, or return his call if he contacts you, before making a final decision to leave the Navy.

Peer group discussion is fine, but only when conducted in an atmosphere of truth. Unfortunately, all too often unfounded rumors are accepted as fact and can lead to what appears to be a sensible decision—one which, in reality, turns out to be far from correct. Remaining in the military is a decision only the individual and his family can make.

Retention is the CNO's number one priority and my number one priority. I'll do everything I can to improve the tangible aspects of life in Navy medicine. However, only with conscientious effort by everyone, from our commanding officers on down, will our personnel deficiencies be corrected.

Improving retention rates is simply good business. When you have good people you keep them. And I am glad to acknowledge that we have a lot of good people.



W.P. ARENTZEN
Vice Admiral, Medical Corps
United States Navy

At NRMC Camp Lejeune, children with physical disabilities get . . .

A Little Help from Their Friends

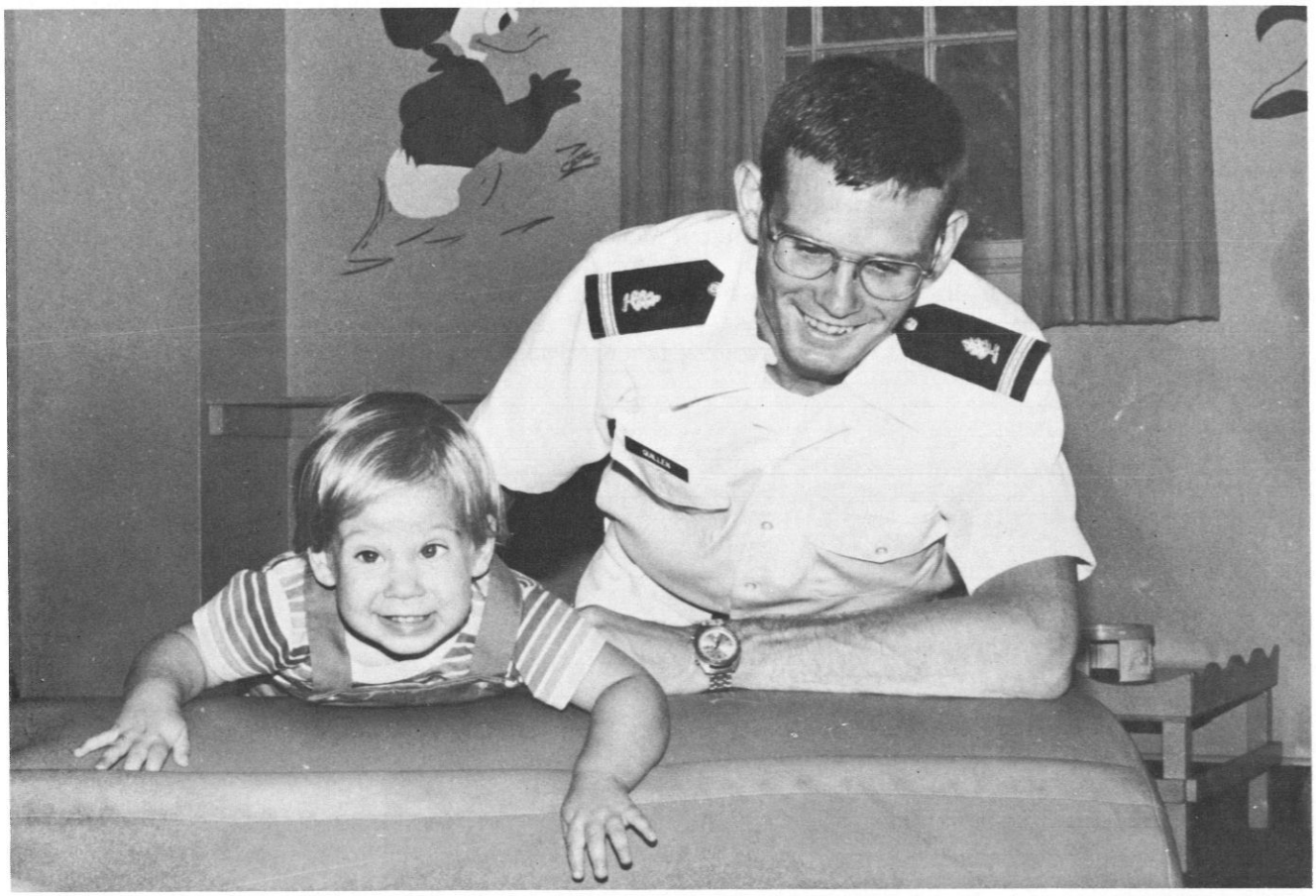
Under the friendly eyes of Donald Duck, Winnie-the-Pooh, Tony the Tiger, and other familiar cartoon characters, a bright-eyed four-year-old is learning to walk between child-sized parallel bars. At two, he fell victim to bacterial meningitis. As a result, he is beginning the developmental sequence all over again.

The therapy room—colorfully decorated to attract and intrigue youngsters—is a part of the Physical Therapy Department at NRMC Camp Lejeune, N.C. It is the heart of a departmental initiative to help physically handicapped children start on the path toward a more normal life.

While the Developmental Physical Disabilities Clinic is only a small part of the department's total effort, it is a necessary one. "We felt there was a documented need to

Photos by NRMC Camp Lejeune Photo Lab

Therapy can be fun. HM3 Laura Canepa turns a foam shape into a gentle slide.



For former ENS William S. Quillen, now LTJG, the goal is simple: to help this child develop basic physical skills that most youngsters take for granted.

establish it," says LTJG William S. Quillen, MSC, USNR, one of the department's two physical therapists. (The other is chief therapist LT Gary Kremser, MSC, USN.) "Lejeune has around 37,000 active-duty personnel. There's a large dependent son-and-daughter population, and a good number of these children have some form of physical disability." However, because Camp Lejeune is located away from the larger population centers, civilian resources for the physical therapy these children need are not available within a reasonable distance.

The idea for the special clinic originated with LT Richard White, MSC, USN, formerly chief physical therapist at Lejeune, and now assigned to NRMC Memphis.

LT White felt that disabled youngsters, referred to the department by the medical center's orthopedic and pediatric services, should have a place of their own for therapy. "He got the ball rolling and did much of the legwork and ordering of equipment before he was transferred," says LTJG Quillen. The room designated for the children's use was renovated and redecorated last winter, and the clinic became fully operational this spring.

Equipment for the therapy room is simple but effective, and includes foam shapes for the children to handle and climb over, a Bobath ball, and the aforementioned pediatric parallel bars. Also part of the equipment—and incidentally one of

the most colorful features of the room—is a large, brightly colored carpet with a special purpose: it's a game rug, used with special game pieces for therapeutic play.

At any given time, the disabilities clinic has around a dozen youngsters under treatment. Their disabilities run the gamut, with cerebral palsy representing the most frequent problem.

The therapists' major work is to help the disabled child develop basic abilities—sitting, standing up, walking, feeding himself or herself, etc.—that the normal child takes for granted. Some of the youngsters work with a therapist once or twice a week, for sessions of 30 to 45 minutes; others, having achieved primary goals such as walking, come in less frequently for rechecks and monitoring of their progress.

Always, the therapists encourage parents to learn how to continue the children's therapy at home. Although the clinic cannot provide five-day-a-week care, "most of these children need daily therapeutic intervention," says LTJG Quillen. "The ones who make the greatest strides are those whose parents have really gone the extra mile."

The disabilities clinic is still in its infancy, he points out, and "we have to bring it carefully along and not overcommit ourselves." Once immediate goals for the disabled child have been achieved, the aim is to integrate him or her into the public school system or special education classes. "We're not taking over the role" of civilian institutions, he emphasizes.

The PT Department's two physical therapists and its four physical therapy and occupational therapy technicians handle a heavy case load, of which the Developmental Physical Disabilities Clinic constitutes only a small part. The department logs 1,200-1,500 patient visits per month—most of them by active-duty personnel—and the program for handicapped youngsters is made possible only by special effort on the part of department members.

"Because of our heavy workload," says LTJG Quillen, "if we didn't have good departmental cooperation—a total departmental effort—we couldn't offer this service."

An appealing environment is a vital ingredient in the children's therapy.

Notes & Announcements

Dental continuing education courses . . . The following dental continuing education courses will be offered in March 1979:

National Naval Dental Center, Bethesda, Md.
Complete Dentures — 12-15 Mar 1979

Eleventh Naval District, San Diego, Calif.
Occlusion — 12-14 Mar 1979

U.S. Army Institute of Dental Research, Walter Reed Army Medical Center, Washington, D.C.
Periodontics — 5-8 Mar 1979

Armed Forces Institute of Pathology, Walter Reed Army Medical Center, Washington, D.C.
26th Annual Course in Oral Pathology — 5-9 Mar 1979

Letterman Army Medical Center, San Francisco, Calif.
Periodontics — 5-8 Mar 1979

Requests for courses administered by the Commandant, Eleventh Naval District, should be submitted to: Commandant, Eleventh Naval District (Code 37), San Diego, Calif. 92132. Applications for other dental continuing education courses should be submitted to: Commanding Officer, Naval Health Sciences Education and Training Command (Code 5), National Naval Medical Center, Bethesda, Md. 20014. Applications should arrive six weeks before the course begins.

AFIP courses offered . . . The Armed Forces Institute of Pathology will offer the following courses:

26th Annual Course in Oral Pathology 5-9 Mar 1979

This course is designed to provide dentists, physicians, and trainees in oral and general pathology with a fundamental knowledge of various aspects of oral disease, and to bring them abreast of recent developments in this field. It will be presented by specialists in oral and general pathology, oral surgery, dental research and cancer investigation. Developmental disturbances of the head, neck and oral region; inflammatory diseases of the oral mucosa and jaws; the oral manifestations of certain systemic diseases; and neoplasms of the oral cavity and related structures will be discussed in detail, and their clinical roentgenographic and microscopic characteristics will be illustrated.

Applicants should be members of the Medical or Dental Corps of the Armed Forces or other federal services. Qualified civilian personnel will be considered on a space-available basis.

Application of Histochemistry to Pathology 19-22 Mar 1979

This course consists of a survey of chemical and physical methods which can be used by the pathologist for the study of sections of tissue under the microscope. The subjects include a review of the theoretical basis of histochemical staining; the practical histochemistry of groups of chemical compounds such as carbohydrates, lipids, pigments and enzymes; and the histochemistry of particular organs such as the skin. The material will be presented by lectures, laboratory demonstrations, exercises, and the study of microscopic slides. Emphasis will be placed upon the use of equipment and methods suitable for the usual military laboratory of pathology.

Applicants should be members of the Medical Corps, Dental Corps, Veterinary Corps, Biomedical Science Corps, or Medical Service Corps of the Uniformed Services. Qualified civilian personnel will be considered on a space-available basis.

Further information may be obtained by writing to the Director, Armed Forces Institute of Pathology, ATTN: AFIP/EDZ, Washington, D.C. 20306.

Major requirement for MSC officers . . . Applications are being sought from qualified and highly motivated enlisted members on active or inactive duty for appointment in the Medical Service Corps, Naval Reserve for active duty. The following specialties are projected to have major vacancies during FY79:

- Health Care Administration
- Medical Technology
- Pharmacy
- Physical Therapy

A baccalaureate degree in the appropriate specialty is required. For further requirements, refer to the Bureau of Naval Personnel Manual, Article 1020130.

Medical film catalog updated . . . The HSETC 1974 Medical Film Catalog has been revised for 1978. The catalog contains approximately 500 film titles in all areas of medical expertise, including management. Most of these films are available in color in either 16mm film or ¾-inch videocassette tape. The latest program, completed too late for insertion in the revised catalog, is a research endeavor produced in cooperation with the Naval Medical Research Institute and is entitled, "Jim: A One Atmosphere Diving System" (T-469). The film demonstrates how Jim can function under working conditions pointing out the biomedical advantages of the system. It is recommended viewing for engineering and management personnel.

If you have not received your copy of the revised Medical Film Catalog, please call Autovon 295-1226 or write Audiovisual Resources Division, Code 26, Naval Health Sciences Education and Training Command, National Naval Medical Center, Bethesda, Md. 20014.

If you want to borrow materials from this catalog, contact your nearest audiovisual resources library or the HSETC audiovisual resources division.

The Surgeon General's 10th Annual Specialties Advisory Conference and Committees' Meeting

This conference was held 12-15 Sept 1978 in Arlington, Va. The following report represents an edited (sometimes paraphrased or abbreviated) version of the remarks and presentations of specified individuals. Their comments do not necessarily reflect official views of the Navy Department or the naval service at large.

Most of the first plenary session of SAC X was covered in the November 1978 issue of this magazine. The following report covers the remaining presentations at the first plenary session and the second and final plenary session of the conference.

Graduate Medical Education and the Inspector General

RADM Melvin Museles, MC, USN
Inspector General, Medical
BUMED Code 007

First, I would like to talk to you about the scope of the Inspector General's responsibilities as a whole, and then speak more specifically about how I interface with you as chiefs of services, and with the graduate medical education programs in general.

I might start off very quickly by describing the "typical Inspector General." The typical IG is a man past middle age, spare, wrinkled, intelligent, cold, passive, noncommittal, with eyes like a codfish, polite in contact, but at the same time unresponsive, calm, and as damnably composed as a concrete post or a plaster-of-Paris cast: a human petrification with a heart of feldspar and without charm or the friendly germ, minus bowels, passion, or a sense of humor.

Now I hope that's not Mel Museles—at least that's not the image I'm going to try to bring to this assignment. I hope that the things I'm going to be doing this year will be done in a very constructive and instructive vein.

I would like to tell you a little about some of our objectives. Basically, we involve ourselves with command accomplishment of mission and functions; adequacy and management of available resources; organization efficiency and effectiveness (including compliance with directives and contingency planning); professional matters (quality of care, compliance with applicable standards, and training); staff appearance and grooming; and other items of special interest that are given to us, as the year progresses, by the Surgeon General—and perhaps by the CNO, passed down through the Surgeon General.

BUMED Instruction 5040.1B refines our inspection objectives and procedures as they apply to BUMED commands and provides some specific guidance for activities being inspected.

I am responsible directly to the Surgeon General and report to him after each trip. My team includes a Nurse Corps officer, CAPT Katie Zabel, who involves herself with many aspects of the inspection, but primarily with nursing service—quality of care being delivered on wards and in special care areas, such as emergency room, operating room, ICU, newborn nursery, recovery room, etc. CAPT Lloyd Nichols, my executive assistant, and CDR Ray Kessler, my administrative assistant, involve themselves with a lot of the administrative problems, including operating management services, budgets, supply, personnel management, safety, patient records, military records, facilities, equipment maintenance, etc. On our visits to the field, we occasionally augment our team with people from the Engineering Corps and Supply Corps who help us carry out the finer details of our assignment.

After an inspection trip, a formal report is made to the Surgeon General and to the commanding officer of the regional medical center. Our formal recommenda-

tions concern themselves with significant deficiencies, and major fiscal, personnel, or facility problems where outside assistance is required either from BUMED or from higher authority. These reports, of course, require very specific responses and follow-up action, usually within 30 days, and they have a very privileged status. Informal recommendations are also made directly to the commanding officer, and responses are required within 60 days. The Surgeon General is briefed after each trip on all recommendations, so that he is aware of what is transpiring in the field.

An IG inspection clearly could not be effective without adequate preparation. Prior to each of our inspection trips, we are involved in information gathering. We continuously keep abreast of current system problems, BUMED policies, JCAH inspection reports, Navy audit reports, and any changes taking place which would have an impact on the command we are about to visit.

I generally forward a pre-inspection letter to each commanding officer, requesting a wide variety of management information as well as data on specific problems which the command happens to be struggling with. Problems submitted by the activity become sources of special interest to me. We make personal visits to all the pertinent codes in BUMED, gathering more specific information about each command, and seek to assist with the problems they have identified, even before we go to the field.

If I am to inspect a graduate training hospital, I contact key people at HSETC and BUMED Code 3, in an effort to identify specific training problems in advance of my trip. I ask the following questions: Are they having difficulty with teaching staff? with their residents? with interns? with the teaching material? Are there future-assignment problems that perhaps I can help with? Are there additional space or support requirements currently not being met?

If I visit a command with a family practice teaching program, I will generally handle the program myself, since I personally have always had a special interest in medical education. However, if I inspect a very large graduate training hospital, I may request HSETC to augment my team with an additional physician to assist me in my interviews with residents, interns, teaching staff, and chiefs of services, because of the large number of people involved.

When I visit your centers, I am particularly interested in the following areas involved with your training programs:

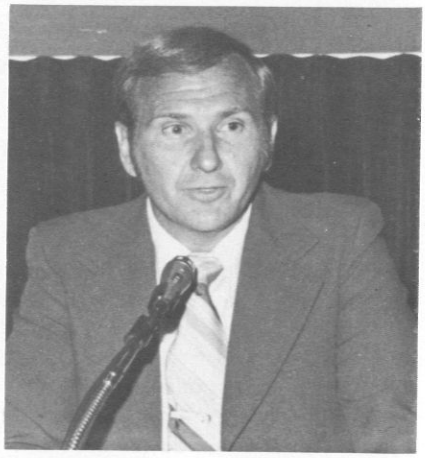
- Your goals and objectives.
- Adequacy of your teaching material.
- Adequacy of your teaching staff. Are you well-balanced across the board and through all subspecialties?
- Quality of the teaching conferences within your own departments and within the entire graduate training hospital. Is the attendance sufficient? Is everybody getting what he or she is supposed to be getting out of these teaching conferences? How do you critique the teaching conferences? How do you plan to improve them? Is the conference approved for continuing education credits?
- Equipment. Is it adequate? Is it being maintained properly? Is it current state-of-the-art? What kind of planned replacement program do you have? Is there a command equipment review committee, and do you sit on it?
- Does your training program meet residency review requirements? (I try, whenever I can, to review previous residency committee inspection critiques to see if you indeed are correcting the deficiencies or problems defined by the residency review committees.)
- How well are the graduates of your programs doing with their board exams?
- How do you review, evaluate, and update your training programs?
- Your budget—Are your operating targets and your travel money adequate?
- Problem areas. In talking to your interns and residents, I generally turn up a lot of problems that may not surface with you directly. So we try to identify problem areas in which I may be able to help you with your program. I certainly can recommend additional support from HSETC and from BUMED where indicated.

I meet personally with as many of your residents and interns as I possibly can. I then meet with you and discuss my findings, attempting to do this, as I said before, in as constructive and instructive a manner as possible. I then discuss my findings with the commanding officer and keep him apprised of what's going on, on a daily basis.

At the end of our inspection, we generally hold a critique and invite as many of the staff to attend as possible. We go over our formal and informal recommendations with you all present. As mentioned earlier, the "formals" are those which generally require some support or assistance from BUMED or other higher authority. The "informals" are directed to the com-

RADM Museles

CAPT Richter



CAPT Castell

manding officer for his direct implementation.

Obviously, an IG inspection would not be effective without follow-on action. It is through emphasis on these critical "before and after" periods that the IG provides a continuous monitoring of Medical Department progress as well as motivation to improve local and BUMED support to the field, thus ultimately achieving improved quality of health care for our patients.

Although IG inspectors will always be plagued with those two great lies, "We're happy to have you" and "We're here to help you," I sincerely hope that in my tour this year these statements will be true.

My team is clearly designed to help BUMED carry out its mission of support to the fleet; to help commanding officers improve management; and to help you, as chiefs of services, improve your own graduate training programs.

The Uniformed Services University School of Medicine

CAPT Tor Richter, MC, USN
Associate Dean
Uniformed Services University of the Health Sciences

In this report on the status of the Uniformed Services University of the Health Sciences, I'd like to make three points: first, that the school is alive and well and living under an assumed name in Bethesda; second, that it is not just another medical school; and, third, that its success depends on just about everybody in this room.

To begin with, then, the school is a reality. For a time it appeared that it might remain an artist's conception. But since the dust settled on the congressional debate over the closing of the school a year ago last spring, the dust has been rising around the school's new buildings in the old Stone Lake picnic area in Bethesda. Classes have been conducted for the past year in the completed first increment and, with the completion of the entire complex next summer, the school will have classrooms, auditoriums, laboratories, and a library to support a medical school class as large as 175.

As there are no immediate plans for other schools of the health sciences, the institution has adopted the simpler name "Uniformed Services University [or USU] School of Medicine."

Three classes have been enrolled: a charter class of 31 students, just now entering their clinical years; a second-year class of 68; and a brand-new class of 108, fresh from a summer's orientation with their parent services.

Demographically, the students are pretty typical of freshman medical students elsewhere. There's a substantial number of women—approximately 20% of our applicants and our acceptees are female. We have a good, though not outstanding, percentage of minority students, and the college grade-point averages and MCAT scores are typical of those of students admitted to medical schools around the country.

But those of you who have been involved in the selection process know that we're looking for a student with another dimension: those personal qualities which will make them successful and happy in a military medical career. The components of those qualities, I suppose, are impossible to define, partly for the reason that standards for admission to the school embrace a great number of noncognitive as well as cognitive factors. In short, there are those who will be good clinicians, good teachers, be interested in what's going on around them, and be in the mainstream of American medicine. But there are also those who understand that commitment to military medicine goes far beyond that, and

extends into the areas that you've heard described by previous speakers.

We're fortunate in having a large applicant pool. Last year there were nearly 3,500 applications for 108 places. We made 173 offers to fill those spaces, and of those 173 five were medically disqualified.

This year, though it's early in the application cycle, there are more than 1,000 applications in the office, and we expect the total to exceed 4,000—this in a period of declining medical school applications nationwide.

The school projects an ultimate class size of 175 and an average of 16 years of service from each graduate as a medical officer. If these projections are realized, approximately a quarter of the present medical officer billet strength within the armed services will be met by USU graduates.

The curriculum is long and densely packed, in the preclinical years, with lectures and laboratory. The standard array of subjects is presented, with emphases and modification to prepare the graduate (insofar as training can prepare one) for patient care in a military setting, including combat. The classroom routine is leavened, and identification with operational elements of the student's service strengthened, through summer electives.

In the summer following the first year, students are sent to operating units, usually in capacities which have nothing to do with their medical training. They become platoon leaders; go to jump school; work in shipyards and the like. The following two summers are spent in service medical activities, in research, and then in clinical electives. For some, this includes the opportunity to work in laboratories and hospitals throughout CONUS, and even overseas.

Of the nearly 450 USU faculty members, only 70 are full time, and of these only 23 are military officers billeted to the School of Medicine. Hence, the vast majority of the faculty is made up of volunteers whose primary duties are outside the school. Included are approximately 100 Navy medical officers.

Many of you have faculty appointments and USU medical school contacts. But it's only the beginning. As the trickle of students entering their clinical years becomes a flood, there will be a corresponding increase in medical officer-student interchange. And this will go on not only at Bethesda but at the other hospitals which participate in student teaching.

We are interested in your ideas about teaching our students and in your evaluation of their performance, particularly as it might affect the modification of our curriculum. We're new, and we're anxious to learn.

The role of the university in graduate and continuing medical education is presently small, but will grow. Potential areas of expansion include sponsorship of fellowships, which we are just getting into; conduct of continuing medical education, both in our own facilities, when they're completed, and elsewhere on request; and provision of guest speakers and visiting faculty to military health care activities as required.

Although I'm a little too close to the institution to be an objective observer, it seems to me that—beyond all I've said—the school has a symbolic function as well. I'd like to think that the existence of the school and its dedication to excellence is an inspiration both to those of us who are lucky enough to be there and to those who are so intimately involved in the Navy training programs. I hope that you'll think of USU as something you have an active interest in, and that you will assist and participate in its growth.

The Physician Personnel Shortage in Navy Medicine—An Invitational Address

CAPT Donald O. Castell, MC, USN
LTJG Margaret M. McCarthy, MSC, USNR
Internal Medicine Service
National Naval Medical Center

In his article "Medical Care: Health Needs and Resources" (*New England Journal of Medicine,* 1 Jan 1964), George Rosen appropriately stated that "the provision of health care requires sufficient numbers of competent personnel and appropriate kinds and numbers of facilities. The strategic factor is *personnel,* since no program of health care can operate without enough people of the right kind. A shortage of personnel can be defined simply as the difference between the numbers available to render service and the numbers needed."

Although need is often the index of adequacy in health-related discussions, the measurement of health care needs for the purpose of determining future personnel requirements is a complex problem with many interrelated variables. William L. Kissick, in an article entitled "Health Manpower in Transition," suggests that "in many areas need is determined by a highly judgmental process. How many times does a patient with hypertension or with well-controlled diabetes need to see a physician? With a definite answer to questions like these, a definite *need* could be defined for a specific amount of health manpower.

"Economists and manpower specialists agree that manpower forecasts based even on a finite need for future health services are unrealistic. They suggest approaching manpower forecasting in terms of demand for health services in the classic economic sense of supply and demand. Demand is the economic expression of need, although demand may go beyond need, as is the case with the hypochondriac."

Health manpower requirements blur the difference between need and demand. They may mean primarily

TABLE 1: Estimated Navy-Wide Subspecialty Requirements

	Ideal	Reasonable	Minimum	Actual 1979 Staffing Estimate
Cardiology	43	37	29	16
Hematology/Oncology	39	30	26	17
Infectious Disease	44	37	17	6
Pulmonary Disease	23	18	16	14
Gastroenterology	29	22	14	12
Endocrinology	22	19	14	10
Rheumatology	26	21	9	7
Nephrology	8	6-8	6-8	7

need or mainly demand, or they may mean a mix of need and demand. A review of the literature on the projection of health care manpower requirements results in an unclear distinction between need and demand. Although the prediction of manpower requirements for the provision of health care services is risky, it is an essential step in organizational planning.

A severe physician shortage is one of the major problems that faces the Navy Medical Corps today. This is a problem most Medical Corps officers are concerned about. It is a problem in organizational planning, requiring the attention and talents of high-level administrators. Although the shortages are not painfully apparent at the four major training centers this year, the projections by specialty consultants for the summer of 1979 indicate that there will be severe and critical shortages of physicians of all specialties, resulting in training-program deficiencies, limited patient accessibility to specialist care, and an unavoidable overall decrease in the quality of medical care.

With the discontinuation of the draft in 1973, there has been a progressive decrease in Berry Plan input. Consequently, the Medical Corps is presently on its own in terms of the acquisition of physicians, particularly qualified specialists and subspecialists. With this "no input" situation, the Navy Medical Corps must *train to meet its needs.* To establish a rational plan for present and future training programs, an intelligent appraisal of the true needs for physicians of all specialties in the Navy Medical Corps is necessary.

In order to examine the seriousness of the problem more closely and give thought to its resolution, we gathered data on the availability of, and requirements for, internal medicine subspecialists throughout the Navy.

Methodology. Various forecasting methods for determining health manpower requirements are cited in current literature. All have unique deficiencies. The use of one method over another usually depends on the data that are readily available. More often than not, a combination of various methods is used in an analysis of future health manpower needs.

The three most cited methods are:

- Population ratios. The application of existing health-manpower-to-population ratios to the projected population base.
- Economic projections. The formula involves (1) projecting the expenditures for future years and using this figure as the numerator; (2) determining the expenditures per worker and using this figure as the denominator. The result translates effective demand into manpower requirements.
- Professional judgment. The use of medical professional opinions in the absence of hard data.

Of the three methodologies cited, we used the third: professional judgment. Data which would allow us to use the population ratio methodology and/or the economic projection methodology were unavailable.

We gathered our data by soliciting opinions from internal medicine physician subspecialty advisors relative to their estimates of projected need in the individual subspecialties. In each instance, the consultant was asked to survey a complete list of Navy hospitals and give his best judgment of placement and numbers of subspecialists, based on "ideal," "reasonable," and bare "minimum" staffing levels.

The study was limited to the specialties of internal medicine because of the co-authors' knowledge in this area, but it was felt that the shortages in internal medicine were but a reflection of those in other specialties. We used the subspecialty of cardiology as a specific example because the needs in this critical subspecialty seem clearer.

Table 1 gives an estimate of Navy-wide requirements

for each of the eight subspecialties in internal medicine, presented as "ideal," "reasonable," and "minimum" needs. Quite striking are the comparisons with the projected July 1979 resources in each subspecialty, which fail to meet even the "minimum" staffing estimates.

Table 2 indicates the estimated personnel needs in the subspecialty of cardiology for the four teaching centers, the naval regional medical centers, and the remaining Navy hospitals, presented as "ideal," "reasonable," and minimum" requirements. The table indicates that if only the "minimum" estimate is satisfied, many of the medical centers, and most of the remaining Navy hospitals, will not have a cardiologist on board. The grand totals in these estimates indicate that "minimum" staffing needs supply primarily only the four teaching centers. Resource estimates for the other seven medical subspecialties show a similar distribution.

Before we could further examine subspecialty needs, we needed to develop a formula to predict the number of trained subspecialists on active duty at any time. When examining the numbers of trainees completing their subspecialty programs per year, we made three professional judgment assumptions:

1. The average period of obligated service at the completion of fellowship is two years.
2. The Navy can anticipate a 25% retention rate on active duty after the obligated two years.
3. Those subspecialists retained beyond the two years will remain active in their subspecialty for ten years.

Obviously, many factors can modify each of these assumptions, but experience would suggest that they are reasonably accurate. At present, many physicians completing a two-year subspecialty fellowship have only a one-year obligation to remain on active duty, and many are leaving the Navy at the completion of that year. However, this trend is changing, and longer periods of obligation at the completion of fellowship training are becoming more common. The assumption of a 25% retention rate beyond the period of obligated service is probably generous. In addition, the assumption of retention for ten years of active involvement in a particular subspecialty is probably also a generous estimate.

Based on these assumptions, Figure 1 indicates the projected numbers of specialists on active duty at any

FIGURE 1

SUBSPECIALTY MANPOWER RESOURCES PER YEAR

BASED ON TRAINING OUTPUT OF 4 PER YEAR

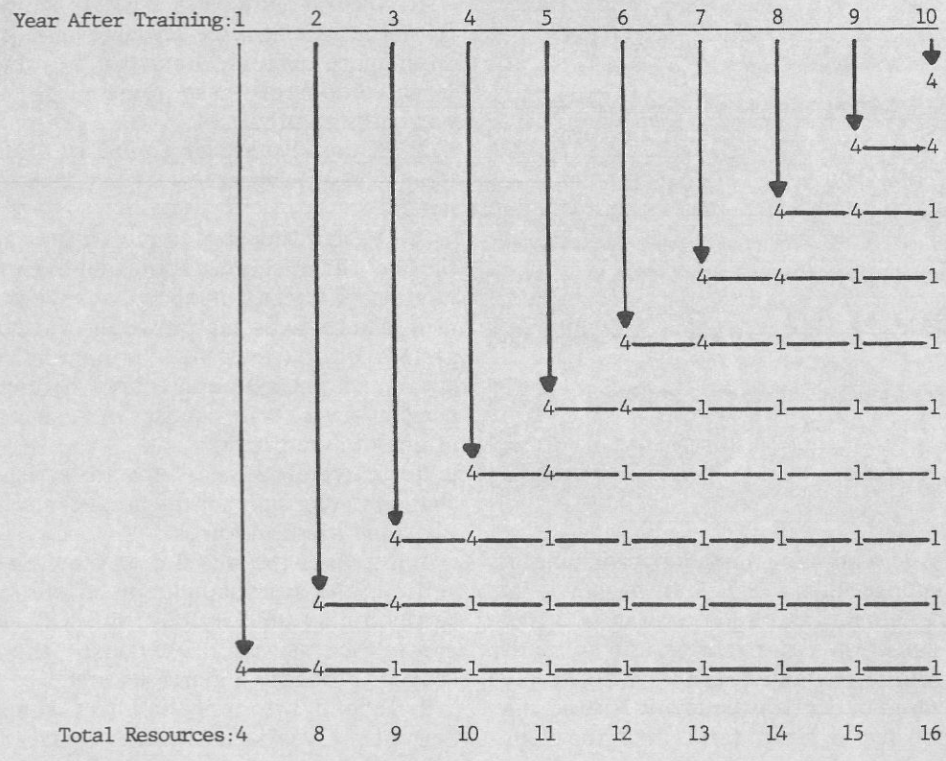


TABLE 2: Estimated Number of Cardiologists Required by Hospital

	Ideal	Reasonable	Minimum
Teaching Centers:			
Bethesda	5	5	5
Oakland	3	2	2
Portsmouth	4	4	4
San Diego	10	8	7
	22	19	18
NRMCs:			
Newport	0	0	0
Subic Bay	0	0	0
Bremerton	1	1	1
Camp Pendleton	1	1	1
Charleston	1	1	1
Great Lakes	1	1	1
Guam	0	0	0
Hawaii	0	0	0
Jacksonville	1	1	1
Long Beach	1	1	0
Memphis	1	1	0
Philadelphia	2	1	1
Yokosuka, Japan	1	0	0
Camp Lejeune	1	1	1
New London	1	1	1
	12	10	8
Hospitals:			
Annapolis	1	1	1
Beaufort	1	1	0
Cherry Point	1	1	0
Corpus Christi	1	1	1
Guantanamo Bay	0	0	0
Key West	0	0	0
Lemoore	0	0	0
Orlando	1	1	1
Patuxent River	1	1	0
Pensacola	2	1	0
Port Hueneme	0	0	0
Quantico	0	0	0
Roosevelt Roads	1	1	0
Rota, Spain	0	0	0
Taipei	0	0	0
Whidbey Island	0	0	0
	9	8	3
Grand Totals	43	37	29

time, resulting from a training program providing an output of four subspecialists per year. Again using cardiology as an example, assumption number 3 indicates that at the end of the tenth year one subspecialist per year will be lost to retirement or upward mobility, so that the total number remains constant beyond that point. Mathematically, a fixed ratio then develops, based on the numbers shown in Figure 1, indicating that for each subspecialty trainee output per year there will be four subspecialists on active duty at any one time.

Table 3 lists the current numbers of approved training billets each year in the various subspecialties in internal medicine, as recently revised by BUMED Notice 1520 of 1 May 1978. Note the small number of trainees in all subspecialties, e.g., only four per year in cardiology and two per year in infectious disease. As indicated earlier, with the decrease in the Berry Plan input, the Navy is in a "no input" situation. The Navy, at this point, is entirely dependent on subspecialists generated in the Navy system. Also, only 30 general internists are presently being trained each year. Using the formula for projected total manpower, this would indicate only 120 internists on active duty at any time, far below our estimated need of approximately 292 total internists. (This is a 1978 projected-need figure from the "professional judgments" of the commanding officers of all naval hospitals.)

The discrepancy between our current training potential and our estimated needs can be better demonstrated by Table 4. Here the "minimum" staffing requirement in each subspecialty is shown, together with the number of trainees required per year to maintain this level on active duty. The deficit between the number of trainees required and the number of trainees currently provided is striking. Remember, this is the "minimum" staffing estimate.

Conclusions. From the above analysis, the following conclusions can be drawn:

1. Accurate data with which to define rational needs for military health care resources are difficult to obtain. Until more accurate data can be obtained, "professional judgment" may remain the most reasonable technique to use.

2. In the absence of a military draft and the Berry Plan type of program, the Navy must train to meet its needs.

3. Present Navy training programs are not providing the Navy health care system with even the "minimum" number of internal medicine subspecialists (Table 4).

4. Alternatives for providing the Navy health care system with at least the "minimum" number of subspecialists must be immediately examined in order to prevent severe compromises in the quantity and quality of health care provided.

Recommendations. There are at least four ways to change the formula for the provision of subspecialists in the Navy Medical Corps:

1. Increase the number of years spent practicing a subspecialty after completion of fellowship training. It seems highly unlikely that this will be accomplished, and in fact, as stated previously, the estimate of ten years is probably a generous one.

2. Extend the obligation for subspecialty training beyond two years. This trend appears to be occurring. With increasing numbers of scholarship students, and

TABLE 3: Subspecialty Fellowship Positions Each Year by Naval Activity

Internal Medicine Subspecialties	Positions Each Year	Bethesda	Oakland	Portsmouth	San Diego
Internal Medicine	30	6	4	8	12
Cardiology	4	2			2
Endocrinology	2	1	1		
Gastroenterology	2	1			1
Hematology/Oncology	3	1			2
Infectious Disease	2	2			
Nephrology	1				1
Pulmonary Disease	4	1		1	2

Source: BUMED Notice 1520 of 1 May 1978

TABLE 4: Comparison of Minimum Subspecialty Requirements with Current In-Service Training Output

Subspecialty	Minimum Staffing Requirement	Yearly Output Requirement	Current Output/Year	Deficit (Trainees/Year)
Cardiology	29	7	4	3
Hematology/Oncology	26	6-7	3	3-4
Infectious Disease	17	4	2	2
Pulmonary	16	4	4	0
Gastroenterology	14	3-4	2	1-2
Endocrinology	10	2-3	2	0-1
Rheumatology	9	2	0	2
Nephrology	8	2	1	1

eventually Uniformed Services Health Sciences University students, completing subspecialty programs in the future, we should recognize an increase in periods of obligation for subspecialists. But this offers no hope for the immediate short-term needs.

3. Improve retention. Navy training centers are presently facing severe deficiencies of experienced senior teachers. The alarming loss rate of commanders having 10-15 years of active duty has resulted in great voids in many training programs. There seems to have been little or no progress in reversing this trend.

4. Increase the input of subspecialists into the Navy medical system.

In lieu of drafting physicians, which would solve the Medical Corps problem, and recruiting subspecialists, which has been a relative failure, the final recommendation seems to be the most expeditious way to resolve the present critical situation. It would seem that serious consideration should be given to finding whatever mechanism is available to increase training in medical subspecialties. Every attempt should be made to increase inservice subspecialty training where present resources allow, but the projected deficiencies of subspecialists by July 1979 will make it difficult for training programs to be staffed adequately.

The alternative to inservice training would be to increase outservice training. Based on the foregoing analysis, this is highly recommended, particularly in those subspecialties that are most crucially affected, such as cardiology, hematology, and infectious disease. The benefit of such a maneuver is much greater than the simple provision of increased numbers of subspecialists. One of the major strengths of a teaching hospital is the association with colleagues from various schools and training programs. Outservice input would prevent "inbreeding."

Finding the mechanism for increased outservice training with appropriate added obligations for active duty should be considered a high-priority item and a crucial need.

Introductory Remarks

CAPT J.S. Cassells, MC, USN
Director of Clinical Services
NRMC San Diego, Calif.

This has been a very good meeting. The consensus generally has been that there is a strongly positive spirit this year. The pall of gloom that has sometimes passed over us in recent months is beginning to lift. For the first time in a long time at these meetings, there has not been a great clamor of people wanting to present issues for the consideration of this august body. There are issues to be addressed, all right, but they appear to be soluble issues, and that's a definite step in the right direction.

Our first speaker is LCDR Richard Ridenour, from the Intern Directors Committee. All questions will be held until the end of the speakers' presentations, and then they will be addressed by VADM Arentzen and his staff at that time.

Intern Selection

LCDR Richard I. Ridenour, MC, USNR
Director of Interns
NRMC Portsmouth, Va.

The Intern Directors Committee would like to report the following statistics to you regarding the selection of Navy scholarship students for GME-1 positions in the areas of family practice, obstetrics and gynecology, basic medicine, basic surgery, pediatrics, and psychiatry.

Navy scholarship students' preference lists showed 323 applicants for 255 GME-1 positions set aside for graduating medical students. In obstetrics and gynecology, there were 32 applicants for 18 positions; in family practice, 56 applicants for 38 positions. Basic medicine had 146 applicants for 105 positions. In basic surgery, there were 61 applicants for 73 positions; in psychiatry, 6 applicants for 11 positions; in pediatrics, 22 applicants for 10 positions.

Of those assigned to basic medicine internships, 85% got their first choice for both programs and location. Of those assigned to basic surgery internships, 78% got their first choice for program and location. All other programs showed fairly equally high percentages as relating to program and location choice.

The intern directors unanimously and strongly urge consideration of the following three proposals:

1. Navy scholarship students selected for Navy internships should be given, at the beginning of the GME-1 year, a complete list of operational medicine and GMO billets to which they could possibly be assigned, following that GME-1 year, if they are not selected to continue in training and/or do not wish to continue in training. This would greatly aid in the interns' personal planning during the year and would allow them to explore their options fully.

2. Whenever possible, scholarship students requesting deferments for residencies in specialties in which the Navy is experiencing important shortages should be granted a full deferment, so that the Navy may have the advantage of their serving their obligations in those specialties. These decisions will take into full consideration the operational needs of the Navy.

3. We strongly recommend that Navy scholarship students applying for Navy internships be required to have at least one interview with a Navy medical officer, that medical officer preferably to be located at a training center. More than one interview is recommended.

We ask that the chiefs of services and training directors stress in their correspondence with students the importance of a personal interview in the selection process for internship. Should it be decided that this interview cannot be *required,* then we recommend the use of appropriately strong wording, in the internship brochure and other literature, suggesting the desirability of this type of interview.

This year there were a significant number of applicants unknown to any of the programs. Not having an interview placed the candidate at a serious disadvantage, particularly in highly competitive programs. It seemed to us that many applicants who preferred to take civilian internships seemed to avoid interviewing, possibly feeling that this would give them a better chance for deferment because they might not be known —and, therefore, not selected. Some applicants could not be rated for selection because of incomplete folders, often without interviews.

We acknowledge that the interview may cost the student time and cause him or her monetary inconvenience, but we feel that the benefits to the student and to the Navy in the selection process far outweigh these other issues.

The Operational Tour

RADM Henry A. Sparks, MC, USN
Deputy Surgeon General and
Assistant Chief for Headquarters Operation

The Operational Medicine and Research Development Committee took under consideration some 15 agenda topics for review and analysis. We selected for presentation one important subject around which much of our personnel planning and utilization revolves: namely, the operational tour.

VADM Arentzen addresses a question from the floor.

It is the recommendation of the Operational Medicine and Research Development Committee that *all* GME-1 graduates, without exception, be assigned to operational billets. This recommendation is made with the full realization that this policy will have a potentially negative impact, for one to two years, on graduate medical education programs.

The institution of such a policy would, we believe, provide for the introduction of operational medicine into career planning of all junior medical officers at the most appropriate time; improve the acceptability of operational assignments as career enhancing; and improve the performance and prestige of Medical Corps personnel with the line community.

Adherence to such a recommended policy would have to be tempered, of course, with appreciation of several hard facts, one of which is current accessions.

GME candidates number about 300. There are slightly over 600 operational billets, which require an input of approximately 300 personnel per year to maintain readiness on a continuing basis. Approximately 250 GME-2 postgraduate positions are available in all specialty disciplines per annum. At the moment, qualified active-duty applicants from the operational arena are selected to fill approximately two thirds of those 250 billets.

With the implementation of a uniform policy with respect to a mandatory first tour in an operational assignment, approximately one third of the graduate-level positions would remain vacant for one to two years. Now, that is the *immediate* prospect. But if we take into consideration the numbers that were projected on prospective accessions from the medical scholarship program, it doesn't take too much reflection to recognize that the circumstance will turn around completely within 36 to 48 months when the number of new accessions will go up significantly. Then we will have the problem of providing enough training billets for those physicians who have completed the operational tour.

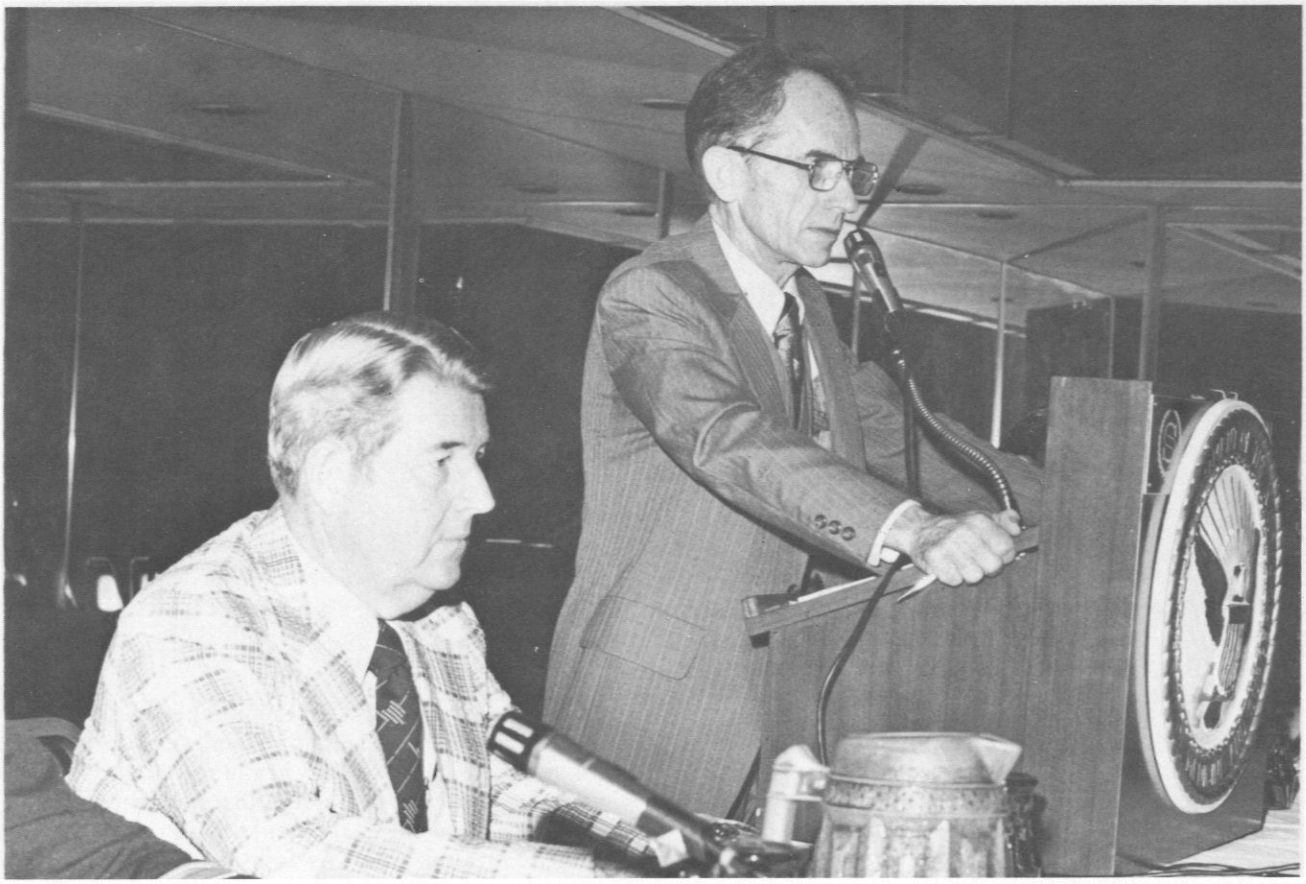
With respect to our recommendation, we offer it with the full realization that this is a complex issue; however, we stand by the basic premise that there should be a 100% involvement in an operational tour following completion of GME-1 training.

Technical Support

CAPT James K. Summitt, MC, USN
Chief, Ophthalmology Service
NRMC San Diego, Calif.

When Dr. Cassells asked me to address this particular topic, I hesitated because I was afraid that the information I have might be a little inaccurate, and that I would say some things that someone in the audience could contradict. But I think the numbers that I can give you this morning, at least with regard to ocular technicians in ophthalmology and optometry, will suffice for some of the issues we ought to look at.

While I'm going to be talking specifically about ophthalmology and optometry, I recognize that almost all the specialties that use technicians will have similar, and probably worse, problems. I'm going to address San Diego specifically, because that's where I'm located.



VADM Arentzen introduces RADM Williams (left), retiring Deputy SG.

As all of you know, San Diego is a large regional medical center. The Ophthalmology Department runs eight clinics and three operating rooms—frequently simultaneously—scattered over six military bases.

We have an authorized ocular technician level of 30. But in February 1978 our onboard strength was 16, and for several months we had to restrict our surgery, stop routine leave, and underman the regional clinics. The number of technicians has subsequently increased to 23, but we're scheduled within the next four or five months to go back to 17 or 18.

I don't have any doubt that some of these technicians will be replaced, and the personnel documents that reflect these changes will reflect the losses considerably before they do the gains. But, in any case, I think that we look forward to another period of several months of marginal capability. From talking to the other chairmen in my group, I think they are going to go through a similar period.

Let's take a very brief look at the ophthalmology and optometry technicians in the Navy overall. We have approximately 182 authorized technician billets, with a current onboard strength of 158. This sounds pretty good—it's a shortfall of only about 25. But in the next 15 months, we predict a loss of 97 technicians and a gain of only 71.

The replacements that we expect are going to come both through the training cycle and through reenlistments. It's interesting that, in the predictions I could acquire, only 12 of those replacements are coming from reenlistments, and I think that again emphasizes the extreme importance of our efforts to keep our enlisted personnel in the Navy.

In addition, we have raised questions as to whether the billet numbers scattered around the Navy are adequate, even if they are manned 100%. We recognize that there are a number of ways of determining the ancillary personnel that are legitimate for support of the professional officer, and it's a complex issue. In some instances, it might best be done by taking an individual unit workload, such as a laboratory or an X-ray facility. In some specialties, such as dentistry or ophthalmology, and probably ENT, it might best be determined on the basis of the number of individual practitioners, and I understand that such a system has in fact been proposed and submitted to the Surgeon General for consideration in the field of ocular techs. This model assumes, also, that not only do you have the profes-

sional manpower that is supported by the technician manpower, but you also have facilities that are designed for the maximum utilization of both doctors and corpsmen.

Finally, there is a problem not only of numbers but also of quality and distribution. Ocular technicians are divided into two groups: clinical technicians, who support the ophthalmologist and the optometrist in the clinics, and surgical technicians, who work both in the clinic and in the operating room—but they are extremely vital in the surgical suite.

Today we have an onboard strength of 125 clinical technicians, but we have only 33 surgical technicians. It's not too difficult to see that surgical technicians may not be available for all facilities, particularly the smaller hospitals that support one or two professional officers.

I have been told that both Memphis and Yokosuka will be losing their surgical technicians this fall, with no replacements planned, and most certainly this is going to impact on their ability to do major ocular surgery. Even the larger hospitals, such as Philadelphia and Bethesda, are so tightly staffed with surgically trained technicians that unexpected leave or illness results in modified or canceled surgical schedules.

We recognize that the solutions to these problems are not simple, and they'll take some time. But I personally am convinced that the people here in Washington are well aware of our problems and are working very hard to help solve them.

I would propose that those of us who have been at this meeting take two steps on our own. The first one is to go back home and keep our enlisted people in the Navy, if we can. And the second is to document our own workloads and our own activities so that we can give the information to the people back here, to justify the needs that we know are real.

Travel Funding

CAPT Richard Davis, MC, USN
Chief, Anesthesiology Service
NRMC Oakland, Calif.

A goodly percentage of you are program directors, and while this originally was an anesthesiology problem, I think it affects several of you.

The American Board of Anesthesiology has a biannual program directors' meeting which is not held in conjunction with any national meeting but is instead held at the annual assemblage of the board members for oral board exams.

This year they have requested both the program director and the clinical competency chairman to attend. The board doesn't trust us to be totally honest about our residents, so they require that somebody besides the program director say this physician is actually competent. Thus, they requested that two of us from each program come to the meeting.

The meeting is a workshop-type meeting—thus it's both an official and an unofficial exchange of information. They solicit our opinions about proposed changes in board requirements, and they give us off-the-cuff information which may or may not ever come out in an official fashion. The meeting gives us an opportunity to get to know the board members, and for them to get to know us, on a somewhat personal basis. This, in the past, has proved of value when there have been problems with board applications or problems that needed a little personal intervention.

The only trouble this year was that nobody had any money for travel. The departmental funds were relatively spent, and we were not in a position to fund travel for two additional people. I went to the command and was able to get some money for this, but the command was in a bind because they had spent all their money. HSETC was solicited and was broke, so the problem we were faced with was how to pay for this meeting. Some of the Navy anesthesiologists were going on their own, on authorization orders; small amounts of money were pried out of various sources for other physicians.

In the past, HSETC has funded this. I thought it was done on an official basis, but it turns out that it was done if there was money left at the time the application came in. This year, for various reasons, the money wasn't available.

Our proposal is that there should be an obligatory funding mechanism of some sort. One of the logical ways to look at this is that it is an integral part of the residency program. It is just as important for the program director to go to the program directors' meeting, and thus keep his residency program viable, as it is for the resident to take his integral-part rotations and thus keep his residency viable.

Education Up the Line

CAPT Calvin Early, MC, USN
Chief, Neurosurgical Service
NNMC Bethesda, Md.

We as program directors, as teaching chiefs, expend boundless energy in the education and training of our trainees, our attending staffs, and ourselves. But how much effort do we expend in the education of our commands, our Bureau, the CNO, and on up the line?

I think it is abundantly clear that unless we are capable of, and effective in, educating up the line, we will not long be successful in fulfilling our mission—either our peacetime mission of patient care for our beneficiaries or our contingency mission.

Is it not possible to educate our superiors so that they can understand and accept the fact that it may be necessary to provide a certain resource—be it materiel or

CAPT Early

CAPT Slemmons

personnel—in peacetime, so that another resource—e.g., a neurosurgeon—might be available for the contingency? In the general practice of neurosurgery at the present state-of-the-art, a surgical microscope and many microsurgical instruments are absolutely mandatory. But they are unnecessary— and in fact they are essentially useless—in war neurosurgery. I can guarantee you, however, that unless they are provided, you will not have one single neurosurgeon worth his salt on the line to treat the battle casualty when the need arises.

The example I have given involves materiel—microsurgical equipment—but is the intellectual step from materiel to personnel so difficult? Can we not educate the powers-that-be to the fact that it may be absolutely necessary, in the peacetime situation, to have certain personnel who may have no significant direct role in the contingency situation, in order to have on the line a neurosurgeon or some other person who is absolutely necessary for the contingency, when that contingency comes?

We have been told there is a document that states that all billets must have a contingency function. A document is a piece of paper. Thinking mem can tear up pieces of paper—even the Constitution can be amended. Documents should exist to aid in the solution of a problem, not to enslave men so that they cannot effect solutions.

Take billeting documents, for example. They exist to provide a solution to a problem. If the problem changes, or ceases to exist, or if a better solution is found, the billet should be changed to meet the new situation.

Too often we find ourselves trying to mold our solution to fit the billets. Clearly, this is putting the cart before the horse.

One of my staff neurosurgeons recently spent six weeks shipboard—he was one of the last medical officers to be so assigned under the fleet pool concept. He is very career oriented, and I encouraged him to volunteer for this assignment. When he returned, he told me of about 20 corpsmen he had observed who were assigned to the Marines—X-ray techs, lab techs, other critically needed clinical personnel. He saw them essentially wasted, while both before and after his cruise he saw patient care seriously faltering because of lack of such personnel.

Can't CMC and BUPERS be educated to preclude such waste? Can they not be shown that providing clinical care now, rather than sitting on their duffs shipboard, does not detract one fig from our corpsmen's ability to perform in the contingency?

Many of us on the front line of clinical care believe that BUMED has no higher, no more important task than this education up the line. We hold that unless this effort is reasonably successful, our work in our training programs and clinical centers, and our efforts in conferences such as this one, will bear little but rotten fruit. Indeed, without such education even our most sincere efforts to meet our contingency responsibilities are also doomed to failure.

We on the front line of clinical care and training recognize that education up the line is not the Bureau's only responsibility. Certainly, goal direction, regulation, and monitoring of patient care are among its many

responsibilities. But we contend that we clinicians are well enough grounded in our jobs that we really require very little regulating, and we view education up the line as a function of the Bureau which is more vital to fulfilling the mission of the Medical Department, contingency or otherwise.

At many of these SAC meetings, we have often been given charges. I think that now we, the clinicians, charge you, the Bureau, with this responsibility of education up the line.

I conclude, then, with three questions: Where, in the rank order of relative priorities, does the Bureau place the function of education up the line? Are those up the line educable? How effectively is the Bureau now carrying out this responsibility, and what are the prospects for the future?

Orthopedic Staff Shortages

CAPT B.K. Siemmons, MC, USN
Chief, Orthopedic Service
NNMC Bethesda, Md.

At the last SAC meeting, the Orthopedic Committee projected a 53% reduction in orthopedic staff positions by 1979. We felt that this would necessitate reductions in provided services and should not occur at the expense of training programs. We recommended elimination of orthopedic positions at 11 facilities and reduction in the number of orthopedic surgeons at 16 other sites, amounting to a total reduction of 42 billets.

As of July 1978, there were eight hospitals that did not have orthopedic surgeons: Cherry Point, Guantanamo Bay, Key West, Lemoore, New Orleans, Patuxent River, Quantico, and Whidbey Island. In 1975, the SHORSTAMPS people did a study of the orthopedic community and recommended one orthopedic surgeon at Cherry Point, none at Guantanamo Bay, one at Key West, one at Lemoore, none at New Orleans, none at Patuxent River, two at Quantico, and one at Whidbey Island. The SAC Orthopedic Committee came up with the same figures. That leaves us now with a deficit of six orthopedic surgeons and with eight facilities that do not have orthopedic surgeons.

Based upon projected losses, by July 1979—and certainly by October 1979—five additional hospitals will lose their entire orthopedic staff. Beaufort will lose two; Corpus Christi, two; Okinawa, two; Port Hueneme, one; Roosevelt Roads, one. The SHORSTAMPS people recommended that to cover these five hospitals we need 20 orthopedic surgeons, while the SAC committee recommended 14, with a bare-bones minimum of 11. So by July 1979, 13 hospitals will not have orthopedic surgeons assigned, and there will be a deficit, in these hospitals, of 26 orthopedic surgeons from the SHORSTAMPS recommendation and 17 from the SAC committee's bare-minimum recommendation.

In July 1979 or shortly thereafter, based on projected losses, the following 10 hospitals will each have one orthopedic surgeon remaining: Philadelphia, Guam, Charleston, Great Lakes, Memphis, Subic Bay, Rota, Yokosuka, Naples, and Newport. The SHORSTAMPS people recommended that these hospitals should be staffed with 34 orthopedic surgeons. Our SAC committee recommended a bare minimum of 28, leaving these hospitals with a deficit of 18 from the committee recommendation.

Five hospitals will have two orthopedic surgeons each after July 1979: Bremerton, Camp Lejeune, Long Beach, New London, and Annapolis. The SHORSTAMPS recommendation for these five hospitals was 26 orthopedic surgeons. The SAC committee recommended a bare minimum of 19, which will leave a deficit of nine from the committee recommendation.

As of July 1979, three hospitals will have three orthopedic surgeons each: Jacksonville, Orlando, and Pensacola. SHORSTAMPS recommended that these hospitals should be staffed by 19 orthopedic surgeons. The SAC committee recommended 14, leaving a deficit of five from the committee recommendation.

One orthopedic program is better off than most others—that at Camp Pendleton, where there will be four orthopedic surgeons. But even there the SHORSTAMPS people called for an orthopedic staff of 10. Our committee felt they could probably get by with six, which means a deficit of two from our recommendation.

At the orthopedic residency training program hospitals, the staffing, after July 1979, will look like this: Bethesda, three; Oakland, four; Portsmouth, four; San Diego, five. The SHORSTAMPS recommendations were nine for Bethesda; for Oakland, at least six; for Portsmouth, eight; for San Diego, nine.

The SHORSTAMPS study, then, recommended that the total staffing of Navy orthopedics should be 147. Our SAC committee felt that we could operate, at a bare-minimum level, with 114.

Onboard strength in July 1979 will be 48. This leaves us a deficit, from even our bare-minimum recommendations, of 66 orthopedic surgeons. Now that does not include the 11 graduating residents, so if we add those 11 to the 48, we will have a total of 59. There will be 11 residents, then, to fill 66 billets.

Now, as to priorities, we still feel that we cannot allow our residency training programs to go downhill. If qualified staff were transferred from other hospitals to training programs, this would include transfer of a man from Memphis, transfer of a man from Yokosuka, and transfer of a man from Charleston. If, in addition to this, one of our prospective candidates for reentry into Navy orthopedics is successful, and if six of the 11 graduating residents are kept in training programs as staff, then our training programs remain viable.

But the second priority, as I see it, is our overseas hospitals, which have no other resource for orthopedic

care. The five remaining residents who are finishing in July 1979 could fill orthopedic billets at Yokosuka, Okinawa, and Roosevelt Roads, but we would be adding Charleston and Memphis to the list of non-staffed hospitals.

Now a few additional comments:

- There is an orthopedic need to defer medical scholarship students for outservice training in much greater numbers. But until the Uniformed Services University provides input into our residency applications, the deferments must be selective and identified as early as possible, so that those medical students may apply and accept civilian residency positions.
- We are in deep trouble in our ability to provide orthopedic care to active-duty personnel at important naval facilities. General surgeons are going to be called upon, more and more, to provide this care, and a greater burden is going to be placed on the operational and family practice physician. Are those people receiving adequate training for this in their training programs?
- Members of the SAC Orthopedic Committee are firmly opposed to contracting with civilian orthopedic surgeons to provide care to active-duty personnel. There are a number of reasons we feel this way, and I think all you have to do is reflect on what contracting has done to cost, morale, and retention when other specialties have been forced to go that route.

The Future of SAC

CAPT J.S. Cassells
Director of Clinical Services
NRMC San Diego, Calif.

The Directors of Clinical Services Committee was given, in addition to the task of circulating among the various committees here at SAC, the charge of addressing the issue of SAC itself. Should it continue? If it continues, what format should it take?

Historically, SAC developed as a mechanism to allow training-program directors some say in the selection of the trainees assigned to them. Over time it has acquired another function: the establishment of a dialogue—the giving and receiving of information in both directions, between the Bureau and the field. A significant side benefit has been the opportunity to gain access to key people for discussion of our local problems and the opportunity to discuss with our peers similar or different problems in our own facilities.

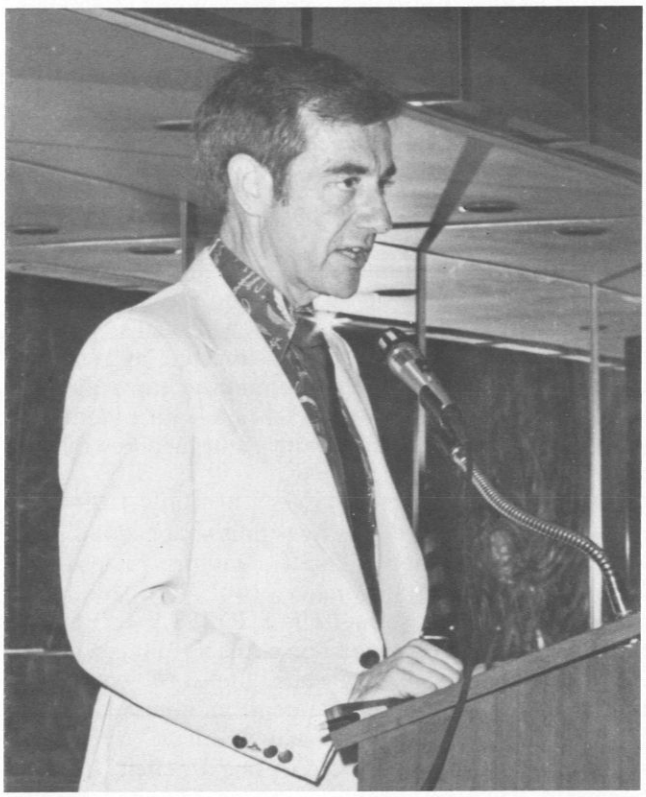
As valuable as this is for those of us here, it is incumbent upon us to carry that information back with us and to disseminate it, not just to the CO's office but throughout the command. I had not realized, until I went to San Diego, how very small the window on Washington is, and it's not just the three-hour difference. I'm looking at SAC from an entirely different perspective this year.

Our committee has agreed unanimously that SAC most certainly should continue. SAC is expensive, but I think it is one of those circumstances where we cannot afford to save the money. The same general format appears to work well and should be continued.

We do feel that participation ought to be expanded to include some representatives from outside the eight graduate training hospitals, and some additions should be made from within those institutions.

We are concerned that the teaching requirements and capabilities of staff assigned to family practice training programs are not always very well addressed. At a minimum, we would like to see two non-family-practice specialists from those four hospitals attend SAC, for the dual purpose of helping in the family practice selection process and, even more important, sitting with their own specialty groups in order to emphasize the legitimate staffing needs and special requirements of their departments in those family practice training hospitals.

Another issue that we addressed, although we were not charged to do so, relates to the junior officers. While those of us in this room are, generally speaking, savvy enough—and, more significantly, senior enough



CAPT Cassells

CAPT J.J. Quinn responds to a question put to the discussion panel. At right: RADMs Sparks and Williams.

—to get the information we need in some way, that is not generally true of our younger colleagues. It is our responsibility, of course, to transmit information to them. But there is nothing like occasionally getting it from the horse's mouth. A number of alternative approaches to that problem—beginning with bringing a few of the junior officers to SAC—have been suggested. There is also the suggestion that we conduct workshops—one on each coast, perhaps—for junior officers.

It is true that it is the young medical officers outside the graduate training centers who have the greater problem. The military sections of the various specialty societies offer an approach, but that is obviously not the total solution. We have had that mechanism in force for some time now.

Each of us on our committee has a different opinion as to how to accomplish this goal. But accomplish it we must, because—make no mistake about it, my friends —unless we do something about communicating better with our younger colleagues, this room will be empty in a few years.

I began this morning's session by stating that I felt there had been a more positive atmosphere at this year's SAC. I continue to believe that. My idea of a "pall of gloom" is a situation where there is no solution. I think that we are not in that kind of position this year. I think solutions to our problems are possible by the exercise of common sense and reasonableness. I believe in my bones, as I've said before, that this system of ours can accommodate anybody's reasonable request.

DISCUSSION

VADM W.P. Arentzen, MC, USN: Let's quickly go through a few of the issues that have been raised:

Scholarship students: providing the list of billets when they start out—that's no problem.

Interview by at least one medical officer at the training hospital—I think that's a good suggestion and should be implemented as soon as possible.

Deferments granted, if possible—Well, of course that's been one of my long-range plans: to defer as many as humanly possible. Shortly after I took over, I realized that all of our Medical Corps scholarship student billets were not filled—because, I was told, "we didn't think we would need them." They're all filled now, and I'd like to get more billets and defer a minimum of 200 a year to get training on the outside, to stop the inbreeding and to ensure us a good supply of trained people.

I couldn't disagree with Henry Sparks more when he says underfill our residency training program by one third. I just can't conceive of that—the only thing keeping us together is

our training program. I realize that we have a commitment to the operational forces—we'll meet that commitment—but we're not going to cut back on our training programs. That would be absolute suicide, and everybody in this room, I'm sure, would be leaving as soon as he or she possibly could.

We have a line credibility, and we're getting more all the time. The OP-093 hat the Surgeon General now wears gives us free access to the CNO and to all the deliberations over in the Pentagon. That never happened to us before.

When I meet with the CNO in our daily morning conference —that's where we educate these people to our needs. At the VCNO's conference, where all the "three stars" are, and the other admirals over at the Pentagon—that's where we can educate them as to our needs. But we don't have to educate them that much; they know our needs.

You must realize that they, too, are strapped, the way we are. They're short, right now, close to 6,000 enlisted. Another angle of that is that the pool of people available for enlistments is decreasing each year.

The answer to the whole thing is not in recruitment; it's in retention. That's where we have to make great strides. That's why I said, in my opening remarks the other day, that we have to retain every one of you teachers in this room or we're in serious trouble.

You have to have a positive attitude with the people working for you. There are going to be a few lean years, but, you know, it's predicted by OSD that by 1981 or 1982 we're going to have an excess of medical officers. We must keep you fellows in this room in, and you must retain all your good teachers that you possibly can and get off the gloom-and-doom kick. Things are going to be better in a few years.

Technicians—that's a very sore point with yours truly. Last year I think I may have said at this conference that by 1978 we're going to be 100% manned in all our tech ratings. Although I had been promised that we'd be up to strength, we're not, and ophthalmology, for example, is at only 71%.

A few of the ratings, I've been told, are overmanned, and there were plans to cut back on training for them. But my idea is not to cut back on the training, but to increase the number of billets. We need more technicians. Dr. Summit was right when he said let's go back and retain our technicians—retain them and document the workload.

As to education up the line, I really do feel that the line is listening to our problems. The last CNO and the present CNO have said many times that it's medical care that keeps the enlisted man in the Navy—if the dependents are not happy with the medical care, the sailor's going to get out—and they've asked many times what they can do to help.

The waste of technicians with some of the Marine divisions is a sore point with me too, but I think Roger Milnes can talk a little bit about FAC coding here.

RADM R.F. Milnes, MC, USN: The first day of this conference we talked about FAC coding. What we've done is come to an accommodation with the Marine Corps regarding some of our specialists. We have selected some 104 people who are going to be FAC coded to the Marine Corps. They will be a variety of specialists, surgeons, neurosurgeons, maybe even the chief of surgery. They will be given the opportunity annually to have some updating in field activities.

Even that small amount of training time is not all that happily received by our senior people or our specialists, but I think it's a must to maintain our credibility with the Marine Corps. This training is good for everyone and gives our physicians an idea of what the Marines are really doing. And the Marines, in fact, are the people who are ready to go to war tomorrow.

FAC coding is a way to alleviate a personnel problem that has been bothering all of us.

VADM Arentzen: I think that account of the fact that the Marines have gone along with this lets you know that they're listening also.

As to corpsmen—our corpsmen's billets are 98.3% filled, which is better than any other line community at the present time, as far as enlisted rates go.

Orthopedics is a problem, no doubt about it, and we're going to have to get some people in outservice training—we have to increase the numbers somehow. We've declared orthopedics a critical specialty, so we can now recruit at the 0-5 and 0-6 levels. Like Dr. Slemmons, I don't like contracts —they give us two classes of citizen: the well paid and the underpaid.

I think we'll get more subspecialty training—if we have to go outside to get it, we'll do so. I repeat what I said before: training is our life's blood; we just can't do without it.

Communication with our junior officers is absolutely essential. As Joe Cassells and I had planned before he left here, we'll have a meeting on the East Coast and one on the West Coast to see how they feel and communicate back to them.

I have found, unfortunately, that our commanding officers are not talking to their staffs. It's surprising how many of our CO's do not even know their staffs.

When I get a resignation that comes across my desk, I pick up the phone and call the individual myself, and I think perhaps this year I've saved about 12 physicians. It's surprising that many times I'm the first one to talk to them. Even you, as chiefs of services, have not talked to these individuals to try to retain them. I think you must give a little better try. We have to make the place better so people stay in. We have to show more attention to our junior officers.

I'd like to ask Bob Williams, our departing Deputy Surgeon General, to say a few words, since this will be Bob's last meeting—in fact, he has only about two more weeks on active duty.

RADM R.G. Williams, Jr., MC, USN: I've had the good fortune to have excellent opportunities throughout my Navy career. Early in my career, I served with the fleet, and it gave me a great deal of respect and admiration for those with whom we serve. I think that any of you in this room who have not had that opportunity have really been cheated. You can highly recommend it to those whom you are training and hold your head high, without any concern for what the outcome will be as far as their experience is concerned, unless they are totally negative individuals.

Regarding the comments that were made on education up the line, I can assure you that the Surgeon General and his staff are making efforts, on a daily basis, to do exactly that—to educate our line superiors and our civilian superiors. I have been personally involved in many meetings, during this past year, that have been fruitful and educational to me, and I can tell you that these people are well aware of our problems and are trying to help us. They have significant problems of their own, however, and we have to go about our business in a businesslike way. We have to live within the constraints imposed by OMB, GAO, the analysts, and all those other people

who are in positions of power and who are working for the President, who's trying to cut the Defense budget.

Now this doesn't mean that we should assume a picture of gloom because we're living within these constraints. It merely means that we have to learn how to deal with these problems in a more businesslike manner.

I commend all of you for the efforts that you make at these sessions—they are very helpful to us in the Bureau. We do take heed to what you say. We do try to work with you and bring to fruition some of your suggestions, and all of them are considered.

My best wishes go to you for continued success. I hope you'll give deep thought to the Surgeon General's request that you remain and give him the support he needs to make us continue to have a viable Medical Corps.

VADM Arentzen: Admiral Conder, would you address the problem with nurse anesthetists?

RADM Maxine Conder, NC, USN: We in the Nurse Corps have to live with billet requirements just as the rest of the Medical Department does. Several years ago, we found ourselves with about 16 nurse anesthetists in excess of our billets. We tried to negotiate for additional billets from the Medical Corps, so that we would not have to slow down our training input. When these billets were not forthcoming, we did slow down our training input. Additionally, we underguessed our projected losses.

Over the last year, we have lost approximately 22 nurse anesthetists. With only about 70 billets, to lose that number —with the threat of an additional 13 nurse anesthetist losses —means that we have problems.

We are actively recruiting. At the present time, I think we are actually two under our billets. We also have received some FAC-coded billets from the physicians, and 10 of these have been dedicated for nurse anesthetists. I am not too hopeful of filling all those billets through the recruiting mechanism, so I urge everyone—surgeons, anesthesiologists—to sit down and talk to our nurse anesthetists, listen to them, and encourage them, too, to remain on active duty.

VADM Arentzen: One thing I didn't address yet is Dr. Davis's thoughts on the program directors' attendance at meetings. We concur that they should go.

For those of you who don't know, last year we fenced the travel dollars that we gave out to your commands. In the past, a certain number of dollars were given with a travel ceiling, and if the old man wanted to use some of that money for something else, he just didn't give you your travel authorization. This past year, we fenced those dollars; he had to spend them on that and nothing else. I will get a report at the end of the fiscal year, and in the case of those CO's who have not

Discussion from the floor was lively and productive.

spent their travel floor, this will reflect in their fitness reports, I can assure you.

We must have every dollar we get for travel used for conference travel. That's such an important thing to every one of you here, and to all the residents and everybody else, and this year that travel money will be increased.

I made a trip out to WESTPAC in the spring, and I found rather a lot of discontent among our dentists and physicians because they are stuck over there for 42 months, in some cases, with no chance for travel. I intend to increase their travel dollars, so that at least once during their tour, they'll have a chance to come back to a professional meeting.

CAPT P.D. Nelson, MSC, USN: I would like to say something in direct support of our Surgeon General's leadership and emphasis on the importance of training.

In the Medical Service Corps today, we face many of the problems I've heard you discussing here this week. We are undergoing many changes also, and if I and the staff that I am bringing to the Medical Service Corps directorate do our job within the next year or two or three, then I think a decade from now we're going to see the greatest change in the Medical Service Corps structure, professions, and quality of our people that we have ever seen. Continuing education, not only for early professional development but for midcareer shifts in professional emphasis and job requirement, will be emphasized, as seems the case in the innovative concepts RADM Barchet and his staff at HSETC are developing.

I would ask each of you, in your important roles as leaders, to stress the concept of leadership among our Medical Service Corps officers as well as our up-and-coming physicians, dentists, nurses, and hospital corpsmen. We call upon you also, within the priority structure of budgeted funds for travel and continuing education, to consider the Medical Service Corps, along with the Medical Corps, Dental Corps, Nurse Corps, Hospital Corps—the entire Medical Department structure—as *all* being vital in this continuing education process.

RADM P.E. Farrell, DC, USN: I think recruiting is such an important issue that we should all give our utmost attention to it—not just recruiting of our officers, but of our enlisted people as well. For too long, we have given lip service to this. And I think that, as has been said before this morning, you are each going to have to spend some time and sincerely talk with your personnel, and try to get them to stay with us.

Another thing I think is so important is that we have to be a little more compassionate and show a little more care and concern for our patients. I think we should renew our dedication to all our eligible beneficiaries: our active-duty personnel, our dependents, and especially our retired personnel. We will do what we can for our own people—take care of our own.

VADM Arentzen: I have used the circumstances of certain medical officers as an example in testimony to Congress. As a result, for the first time they have realized that pay inequities do exist, and as soon as possible they will try to correct them.

We have 269 medical officers now who have served 20 years plus. This is my grave concern as I look around this room. We can't just replace you overnight—we must keep you—and we have to find ways to make you want to stay in and to keep our training programs going.

I have just a few more comments. I'd like to mention the medical school—USUHS. I am very anxious to press the medical school to have on its staff some of our teachers from locations other than Bethesda. I want to get some from the West Coast and all our teaching hospitals. I've told Jay Sanford, the dean, that I will pay the transportation and per diem to bring anybody that he appoints to the staff to Bethesda for a week, two weeks, a month—whatever he wants. I feel this is an incentive to all the good physicians throughout the Navy, and I intend to press that with Jay.

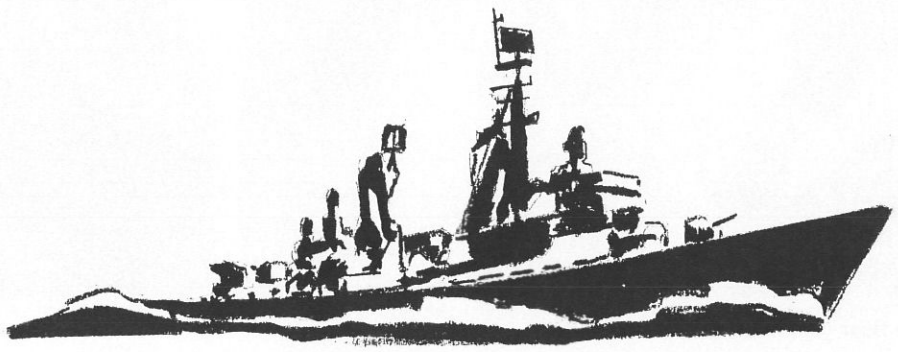
Another thing about USUHS—use their talents. They have a tremendous group of basic sciences people over there, and Jay Sanford is willing to send them all over the country to do some teaching, so make use of them.

About the Medical Service Corps—I'm getting most concerned about the loss of superbly trained young MSC's. They see a bottleneck at the top; they don't think they're appreciated that much by the Medical Corps. There are lots of these young fellows I would like to keep in the service, so take a little interest in them also.

I'll just wind up by asking you to stay with us, because if we lose any great number of you fellows in this room, some of our teaching programs will go down the tube. I'm not going to have a training program run by somebody who has just finished his residency, without any experience, without a gray hair on his head, so think twice before you put your papers in to retire or resign. We're working on getting you more incentives to stay in when you've reached 20 years. And if you want to stay clinical, well, then, just stay clinical. If you want to stay at a place, we're going to let you stay as long as we possibly can.

I'll end by saying thank you for your contributions this week. We'll take everything you said into our deliberations and do our best to make the Navy Medical Department just a little bit better.

Thank you very much.



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